DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SCOTT POND	Lake Area (ha):	54.35
Town: FITZWILLIAM	Maximum depth (m):	2.6
County: Cheshire	Mean depth (m):	0.7
River Basin: Connecticut	Volume (m³):	391000
Latitude: 42°47'15" N	Relative depth:	0.3
Longitude: 72°06'56" W	Shore configuration:	2.58
Elevation (ft): 1073	Areal water load (m/yr)	
Shore length (m): 6750	Flushing rate (yr^{-1}) :	22.80
Watershed area (ha): 1605.8	P retention coeff.:	0.50
<pre>% watershed ponded: < 0.10</pre>	Lake type: natura	l w/dam

BIOLOGICAL:	3 February 1998	5 August 1997
DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	UROGLENOPSIS 45%
#2		MALLOMONAS 25%
#3		DINOBRYON 12%
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		10.22
DOM. ZOOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	NAUPLIUS LARVA 22%
#2		ROTIFER SPP. 20%
#3		POLYARTHRA 17%
ROTIFERS/LITER	24	226
MICROCRUSTACEA/LITER		226
ZOOPLANKTON ABUNDANCE (#/L)	61	458
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		1.5
BOTTOM DISSOLVED OXYGEN (mg/L)	5.0	5.6
BACTERIA (E. coli, #/100 ml) #1		15
#2		13
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

HEMICAL: Lake: SCOTT POND Town: FITZWILLIAM					
	3 Febru	uary 1998	5 1	August 199	97
DEPTH (m)	1.0		1.0		2.0
pH (units)	5.2		5.4		5.4
A.N.C. (Alkalinity)	0.7		0.2		0.6
NITRATE NITROGEN	< 0.05		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30		0.60		0.60
TOTAL PHOSPHORUS	0.007		0.016		0.136
CONDUCTIVITY (µmhos/cm)	51.3		40.6		40.4
APPARENT COLOR (cpu)	60		70		70
MAGNESIUM			0.35		
CALCIUM		-	1.7		
SODIUM			4.6		
POTASSIUM			0.29		
CHLORIDE	8		8		8
SULFATE	5		4		4
TN : TP	43		38		4
CALCITE SATURATION INDEX			6.4		

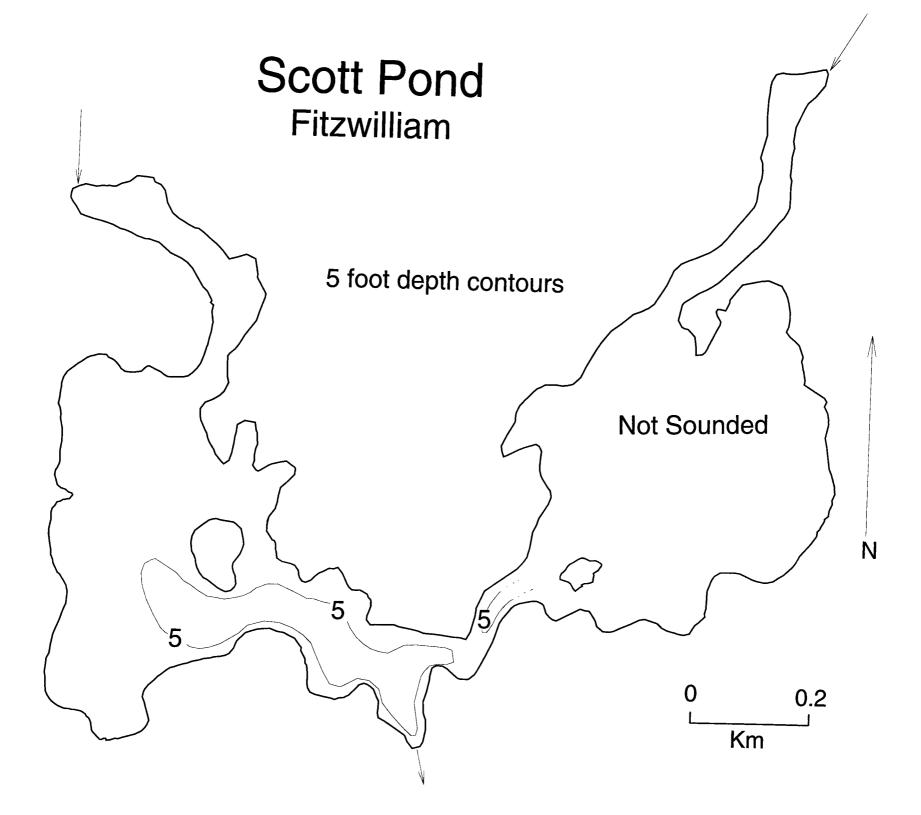
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1997

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	5	2	11	Eutro.

COMMENTS:

- 1. This pond was previously surveyed in 1982 and was also classified eutrophic at that time.
- 2. This is an acidic, dark tea-colored pond. Water clarity is only 5 feet but this is probably due more to the dark color than phytoplankton growth.
- 3. Only the western basin of the pond was surveyed. The eastern basin appeared to be even shallower than the west basin and contained dense macrophyte growth.



FIELD DATA SHEET

LAKE: SCOTT POND

TOWN: FITZWILLIAM

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DATE:	08/05/97	WEATHER:	COOL;	SCATTERED	CLOUDS

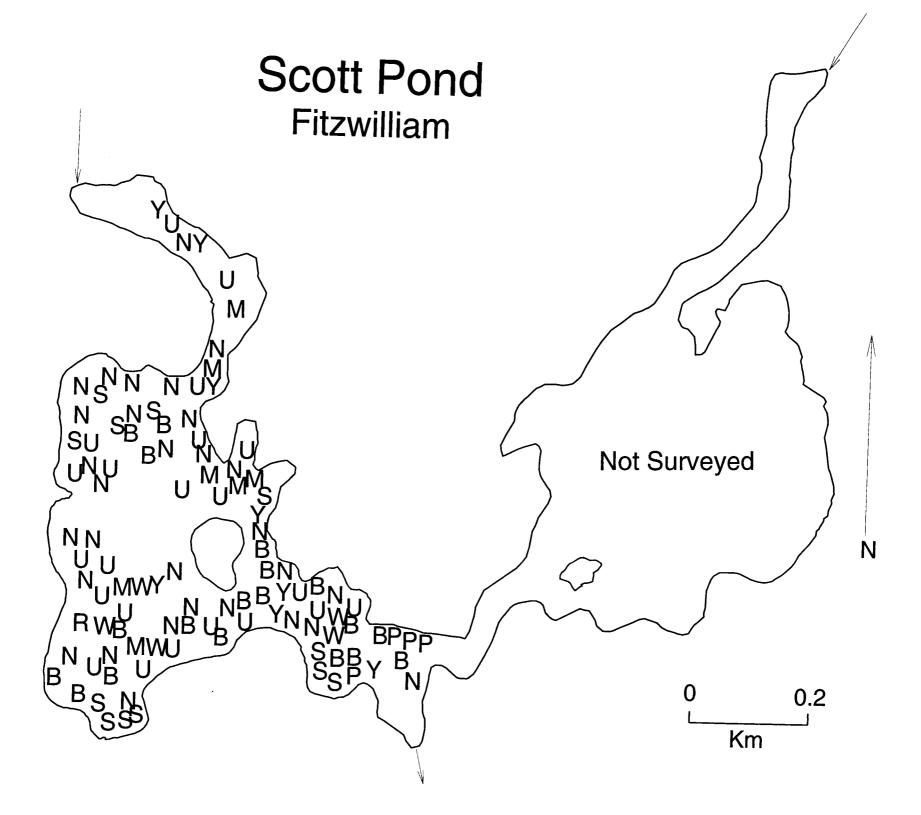
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	23.1	6.6	76 %
1.0	22.9	6.4	73 %
2.0	22.0	5.6	63 %
	-		7/47/4/2 (6)
			77

SECCHI DISK (m): 1.5 COMMENTS:

BOTTOM DEPTH (m): 2.4

TIME: 1345

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

LAK	E: SCOTT POND	TOWN: FITZWILLIAM	DATE: 08/05/97
Key		ABUNDANCE	
	GENERIC	COMMON	ADONDANCE
ប	Utricularia	Bladderwort	Common
N	Nymphaea	White water lily	Common/Abun
s	Sparganium	Bur reed	Scat/Common
P	Pontederia cordata	Pickerelweed	Scattered
В	Brasenia schreberi	Water shield	Common
М	Myriophyllum humile	Water milfoil	Common
Y	Nuphar	Yellow water lily	Scat/Common
W	Potamogeton	Pondweed	Scattered
R	Potamogeton robbinsii	Robbins pondweed	Scattered

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OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

- 1. Bladderwort was abundant throughout the pond. It was probably over much of the bottom but the dark water color precluded its observation. It was more abundant than depicted on the map.
- 2. The abundance rating is for the west basin only. It would be rated very abundant if the east basin were included.